

IN THE CLAIMS:

Please amend the claims to read as follows:

1.-37. (Cancelled)

38. (Currently Amended) A method for identifying whether a compound inhibits entry of a population of viruses infecting a patient virus into a plurality of cells, cell comprising:

- (a) contacting a plurality of viral particles with said plurality of cells ~~viral particle~~ ~~and a cell~~ in the presence of the compound, wherein the plurality of cells ~~express cell expresses~~ a cell surface receptor to which the plurality of viral particles bind virus binds, and wherein the plurality of viral particles comprise particle comprises: (i) a viral expression vector that lacks a nucleic acid encoding a viral envelope protein and which comprises ~~comprising a nucleic acid encoding an envelope protein of the virus~~, and an indicator nucleic acid that produces a detectable signal, ~~wherein the nucleic acid encoding the envelope protein is derived from a patient infected by the virus~~; and (ii) a plurality of viral envelope proteins derived from the population of viruses infecting the patient; ~~protein encoded by the nucleic acid derived from the a patient infected by the virus~~;
- (b) measuring the amount of the detectable signal produced by the plurality of cells cell; and
- (c) comparing the amount of signal measured in step (b) with the amount of the detectable signal produced by the cell in the absence of the compound, wherein a reduced amount of the detectable signal measured in (b) relative to the amount measured in the absence of the compound indicates that the compound inhibits entry of the population of viruses infecting the patient virus into the plurality of cells cell.

39. (Currently Amended) The method of claim 38, wherein the viral particle is produced by co-transfecting into a cell (i) a plurality of nucleic acids ~~nucleic acid encoding a viral envelope protein~~ obtained from a patient infected by the virus, wherein said plurality of nucleic acids encode envelope proteins from the viral population infecting

the patient and (ii) a viral expression vector lacking a nucleic acid encoding an envelope protein, wherein the vector comprises an indicator nucleic acid that produces a detectable signal.

40. (Currently Amended) The method of claim 38, wherein the amount of detectable signal produced by the cell in the absence of the compound is measured by contacting the plurality of viral particles with ~~viral particle and the plurality of cells~~ cell of step (a) in the absence of the compound.
41. (Previously Presented) The method of claim 38, wherein the indicator nucleic acid comprises an indicator gene.
42. (Previously Presented) The method of claim 41, wherein the indicator gene is a luciferase gene.
43. (Previously Presented) The method of claim 38, wherein the cell surface receptor is CD4.
44. (Currently Amended) The method of claim 43, wherein the plurality of cells also express ~~cell also expresses~~ a chemokine receptor.
45. (Previously Presented) The method of claim 44, wherein the chemokine receptor is CXCR4 or CCR5.
46. (Previously Presented) The method of claim 38, wherein the cell surface receptor is a chemokine receptor.
47. (Previously Presented) The method of claim 46, wherein the cell surface receptor is CXCR4 or CCR5.
48. (Previously Presented) The method of claim 38, wherein the patient is infected with an HIV virus.

49. (Currently Amended) The method of claim 38, wherein the plurality of nucleic acids ~~nucleic acid~~ derived from the patient comprise nucleic acids that encode ~~comprises~~ ~~nucleic acid that encodes~~ gp120 or gp41.
50. (Currently Amended) The method of claim 38, wherein the plurality of nucleic acids ~~nucleic acid~~ derived from the patient comprise nucleic acids that encode ~~comprises~~ ~~nucleic acid that encodes~~ gp160.
51. (Previously Presented) The method of claim 38, wherein the viral expression vector comprises HIV nucleic acid.
52. (Previously Presented) The method of claim 51, wherein the viral expression vector comprises an HIV gag-pol gene.
53. (Previously Presented) The method of claim 51, wherein the viral expression vector comprises nucleic acid encoding vif, vpr, tat, rev, vpu, and nef.
54. (Previously Presented) The method of claim 52, wherein the viral expression vector comprises nucleic acid encoding vif, vpr; tat, rev, vpu, and nef.
55. (Previously Presented) The method of claim 39, wherein the cell is a mammalian cell.
56. (Previously Presented) The method of claim 55, wherein the mammalian cell is a human cell.
57. (Previously Presented) The method of claim 56, wherein the human cell is a human embryonic kidney cell.
58. (Previously Presented) The method of claim 57, wherein the human embryonic kidney cell is a 293 cell.
59. (Currently Amended) The method of claim 38, wherein the plurality of cells are ~~human T cells. cell is a human T cell.~~

60. (Currently Amended) The method of claim 59, wherein the plurality of cells are ~~cell~~ ~~is a human T cell leukemia~~ cells. ~~cell.~~
61. (Currently Amended) The method of claim 38, wherein the plurality of cells are ~~cell~~ ~~is a peripheral blood mononuclear~~ cells. ~~cell.~~
62. (Currently Amended) The method of claim 38, wherein the plurality of cells are ~~cell~~ ~~is an astrogloma~~ cells. ~~cell.~~
63. (Currently Amended) The method of claim 62, wherein the astrogloma cells are ~~cell~~ ~~is a U87~~ cells. ~~cell.~~
64. (Currently Amended) The method of claim 38, wherein the plurality of cells are ~~cell~~ ~~is a human osteosarcoma~~ cells. ~~cell.~~
65. (Currently Amended) The method of claim 64 wherein the human osteosarcoma cells ~~are HT4 cells.~~ ~~cell is an HT4 cell.~~
66. (Previously Presented) The method of claim 38, wherein the compound binds to the cell surface receptor.
67. (Previously Presented) The method of claim 38, wherein the compound is a ligand of the cell surface receptor.
68. (Previously Presented) The method of claim 66 wherein the compound comprises an antibody.
69. (Previously Presented) The method of claim 38, wherein the compound inhibits membrane fusion.
70. (Previously Presented) The method of claim 38, wherein the compound is a peptide, a peptidomimetic, a small organic molecule, or a synthetic compound.
71. (Currently Amended) The method of claim 38, wherein the compound binds the plurality of viral envelope proteins. ~~viral envelope protein.~~

72. (Cancelled)
73. (Currently Amended) A method for determining susceptibility of a population of viruses infecting a patient ~~virus~~ to a compound that inhibits viral cell entry comprising:
- (a) contacting a plurality of viral particles with a sample of cells ~~viral particle and a cell~~ in the presence of the compound, wherein the cells from the sample express cell expresses a cell surface receptor to which the population of viruses ~~virus~~ binds, and wherein the plurality of viral particles comprise: viral particle comprises: (i) a viral expression vector that lacks a nucleic acid encoding a viral envelope protein, but which comprises ~~comprising~~ a nucleic acid ~~encoding an envelope protein of the virus, and~~ an indicator nucleic acid that produces a detectable signal, ~~wherein the nucleic acid encoding the envelope protein is derived from a patient infected by the virus; and~~ (ii) a plurality of viral envelope proteins derived from the population of viruses infecting the patient, wherein the plurality of viral envelope proteins are expressed from a plurality of nucleic acids derived from the population of viruses infecting the patient; viral envelope protein encoded by the nucleic acid derived from the patient infected by the virus;
 - (b) measuring the amount of the detectable signal produced by the sample of cells; ~~cell;~~ and
 - (c) comparing the amount of signal measured in step (b) with the amount of the detectable signal produced by the cell in the absence of the compound, wherein a reduced amount of the detectable signal measured in (b) relative to the amount measured in the absence of the compound indicates that the population of viruses infecting the patient ~~virus~~ is susceptible to the compound.
74. (Currently Amended) The method of claim 73, wherein the patient is infected with a population of HIV viruses. ~~an HIV virus.~~
75. (Currently Amended) The method of claim 73, wherein the viral particle is produced by co-transfecting into a cell (i) a nucleic acid encoding the plurality of nucleic acids derived from the population of viruses infecting the patient, wherein each nucleic acid encodes a viral envelope protein from the population of viruses infecting the ~~obtained~~

~~from a patient infected by the virus~~, and (ii) a viral expression vector lacking a nucleic acid encoding an envelope protein, wherein the vector comprises an indicator nucleic acid that produces a detectable signal.

76. (Previously Presented) The method of claim 73, wherein the cell surface receptor is CD4.
77. (Currently Amended) The method of claim 76, wherein the cells from the sample ~~also express cell~~ ~~also expresses~~ a chemokine receptor.
78. (Previously Presented) The method of claim 77, wherein the chemokine receptor is CXCR4 or CCR5.
79. (Currently Amended) The method of ~~claim 75, claim 73~~, wherein the plurality of nucleic acids comprise nucleic acids that encode nucleic acid derived from the patient ~~comprises nucleic acid that encodes~~ gp120 or gp41.
80. (Currently Amended) The method of claim 73, wherein the plurality of nucleic acids comprise nucleic acids that encode ~~nucleic acid derived from the patient comprises nucleic acid that encodes~~ gp160.
81. (Currently Amended) A method for determining susceptibility of a population of viruses infecting virus ~~in a patient infected with the virus~~ to a compound that inhibits viral cell entry, said method comprising:
- (a) contacting a plurality of viral particles ~~viral particle and~~ with a sample of cells ~~cell~~ in the presence of the compound, wherein the cells of the sample express ~~cell expresses~~ a cell surface receptor to which the viral particles bind, ~~virus binds~~, and wherein the plurality of viral particles comprise: viral particle ~~comprises~~: (i) a viral expression vector that lacks ~~comprising~~ a nucleic acid encoding an envelope protein of the virus, but which comprises ~~and~~ an indicator nucleic acid that produces a detectable signal, ~~wherein the nucleic acid encoding the envelope protein is derived from the patient infected by the virus~~; and (ii) a plurality of viral envelope proteins ~~protein encoded by the~~

~~nucleic acid~~ derived from the population of viruses infecting the patient
~~infected by the virus;~~

(b) measuring the amount of the detectable signal produced by the sample of cells;
~~cell;~~ and

(c) comparing the amount of signal measured in step (b) with the amount of the
detectable signal produced by the cell in the absence of the compound,

wherein a reduced amount of the detectable signal measured in (b) relative to the
amount measured in the absence of the compound indicates that the viral population
infecting the patient ~~virus in the patient infected with the virus~~ is susceptible to the
compound.

82. (Currently Amended) The method of claim 81, wherein the patient is infected with an
HIV viral population. ~~virus.~~

83. (Currently Amended) The method of claim 81, wherein the plurality of viral particles
~~are viral particle~~ is produced by co-transfecting into a sample of cells ~~cell~~ (i) a
plurality of nucleic acids, each ~~nucleic acid~~ encoding a viral envelope protein
~~obtained from the viral population infecting the patient infected by the virus,~~ and (ii) a
viral expression vector lacking a nucleic acid encoding an envelope protein, wherein
the vector comprises an indicator nucleic acid that produces a detectable signal.

84. (Previously Presented) The method of claim 81, wherein the cell surface receptor is
CD4.

85. (Currently Amended) The method of claim 84, wherein the cells of the sample of
cells also express ~~cell also expresses~~ a chemokine receptor.

86. (Previously Presented) The method of claim 85, wherein the chemokine receptor is
CXCR4 or CCR5.

87. (Currently Amended) The method of claim 81, wherein the plurality of envelope
proteins are ~~nucleic acid derived from the patient comprises nucleic acid that encodes~~
gp120 or gp41.

88. (Currently Amended) The method of claim 81, wherein the plurality of envelope proteins are ~~nucleic acid derived from the patient comprises nucleic acid that encodes~~ gp160.